AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) A photo-alignment material having a photo-reactive ethenyl group on a polymer main chain, wherein the polymer is in accord with chemical formula 1:{chemical formula 1}

$$-[A]_{\underline{a}}[B]_{\underline{b}}[C]_{\underline{c}}$$

wherein subscripts a, b, and c denote a component ratio of respective monomers, wherein $0 < a \le 1$, $0 \le b < 1$, and $0 \le c < 1$, and wherein component A is a monomer including a photo-reactive ethenyl group selected from groups designated in chemical formula 2, substituted-structure groups of chemical formula 2 having a halogen, a cyano, a nitro, an amino group, and other substituted-structure groups with an alkyl, a haloalkyl, and a cyanoalkyl group having 1 to 10 carbons, or an aryl, an alkyl, an aryl, a haloaryl, a haloalkyl aryl, a nitroaryl, and a cyanoaryl group having 3 to 8 carbons;

{Chemical Formula 2}

2. (Original) The photo-alignment material of claim 1, wherein components B and C are selected independently from groups shown in chemical formula 3, substituted-structure groups of chemical formula 3 with a halogen, a cyano, a nitro, an amino group, other substituted-structure groups with carbonated groups of which carbon number n lies between 1 and 10 such as an alkyl, a haloalkyl, and a cyanoalkyl, and other carbonated groups of which carbon number lies between 3 and 8 such as an alkylaryl, a haloaryl, a haloalkylaryl, a nitroaryl, and a cyanoaryl; {Chemical Formula 3}

$$\begin{array}{c} \text{CH}_{2})_{n} \,, \quad -0-, \quad -\text{C00-}, \quad -\text{NHC0-} \\ \text{CH}_{3} \\ -\text{NHC0-}, \quad -\text{CH}_{2}\text{CHC0-} \\ \text{(CH}_{2}\text{O})_{\overline{n}} \,, \quad \text{(CH}_{2}\text{CH}_{2}\text{O})_{\overline{n}} \,, \quad \text{(CH}_{2})_{n}\text{O-} \\ \\ -\text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O} \\ \\ \text{O} & \text{O} & \text{O} - \text{O$$

Claims 3-32 (Canceled).

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group on a polymer main chain, wherein the polymer is in accord with formula 1:

{formula 1}

$$-[A]_a[B]_b[C]_c$$

wherein subscripts a, b, and c denote a component ratio of respective monomers, wherein $0 < a \le 1, 0 \le b < 1$, and $0 \le c < 1$;

wherein component A is a monomer having a photo-reactive ethenyl group of formula 2, and the monomer having a photo-reactive ethenyl group of formula 2 can be substituted with at least one selected from the group consisting of a halogen, a cyano, a nitro, an amino group, an alkyl, a haloalkyl, a cyanoalkyl group having 1 to 10 carbons, an aryl, an alkyl, a haloaryl, a haloalkyl aryl, a nitroaryl, and a cyanoaryl group having 3 to 8 carbons;

wherein forumula 2 is selected from a group consisting of: {Formula 2}

wherein component B and C are monomers having a non-photosensitive component of formula 3, and the monomers having a non-photosensitive component of formula 3 can be substituted with at least one selected from the group consisting of a halogen, a cyano, a nitro, an

amino group, alkyl, a haloalkyl, a cyanoalkyl, alkylaryl, a haloaryl, a haloalkylaryl a nitroaryl, a cyanoaryl;

wherein formula 3 is selected from a group consisting of:
{Formula 3}

$$\begin{array}{c} \text{CH}_{\overline{z}})_n \,, \quad -0-, \quad -\text{COO}-, \quad -\text{NHCO}-\\ \\ \text{CH}_3 \\ -\text{NHCO}-, \quad -\text{CH}_2\text{CHCO}-\\ \\ \text{CH}_2\text{O})_n \,, \quad \text{CH}_2\text{CH}_2\text{O})_n \,, \quad \text{CH}_2)_n\text{O}-\\ \\ \begin{array}{c} \text{CH}_2\text{O} \\ \\ \text{O} \end{array} \begin{array}{c} \text{O} \\ \text{O} \end{array} \begin{array}{c} \text$$

Claim 34 (Canceled).